

CLAIMS

What is claimed is:

1. An electric power steering system for a vehicle comprising:
a hand wheel in operable communication with a shaft;
a motor in mechanical communication with said shaft; and
a non-compliant torque sensor located at said shaft and located between about a midpoint along said shaft and an upper end of said shaft.
2. The electric power steering system in claim 1 wherein said shaft comprises a single shaft.
3. The electric power steering system in claim 1 further comprising a single cast housing.
4. A steering column for a vehicle comprising:
a shaft controlled by a hand wheel;
a gear assembly in mechanical communication with said shaft;
a motor in mechanical communication with said gear assembly;
a controller in operable communication with said motor;
a non-compliant torque sensor located at said shaft and located between about a midpoint along said shaft and an upper end of said shaft; and
a position sensor in electronic communication with said controller and connected to a bracket switch mounting.
5. The steering column in claim 4 wherein said shaft comprising a single shaft.
6. The steering column in claim 4 wherein said gear assembly comprises a worm and a worm gear.
7. The steering column in claim 4 further comprises a single cast housing.

8. The steering column in claim 4 comprises a housing wherein a bracket connects to a jacket.

9. The steering column in claim 7 wherein said controller is mounted on a face of said housing adjacent to said hand wheel.

10. The steering column in claim 7 wherein said non-compliant torque sensor is directly connected to said controller through a connection pathway in said housing.

11. The steering column in claim 4 wherein said non-compliant torque sensor is connected to said controller through a plug.

12. The steering column in claim 4 wherein said controller is a column electronics module.

13. A steering column for a vehicle comprising:
an upper shaft controlled by a hand wheel;
a lower shaft connected to said upper shaft by a torsion bar;
a gear assembly in mechanical communication with said lower shaft;
a motor in mechanical communication with said gear assembly;
a controller in electronic communication with said motor;
a non-compliant torque sensor located at said upper shaft between said connection of said upper shaft and said torsion bar and an upper end of said upper shaft; and
a position sensor in electronic communication with said controller.

14. The steering column in claim 13 wherein said gear assembly comprises a worm and a worm gear.

15. The steering column in claim 13 wherein said worm and said worm gear are housed in a worm gear housing.

16. The steering column in claim 13 further comprising a housing wherein a bracket connects to a jacket.

17. The steering column in claim 16 wherein said controller is mounted at a face of said housing adjacent to said hand wheel.

18. The steering column in claim 13 wherein said non-compliant torque sensor is directly connected to said controller through a connection pathway in said housing.

19. The steering column in claim 13 wherein said non-compliant torque sensor is connected to said controller by a plug.

20. The steering column in claim 13 wherein said controller is a column electronics module.